Mission execution begins *here.*

Project Overview

In response to the Maritime Transportation Security Act of 2002, the U.S. Coast Guard (USCG) is developing a two-way maritime data communication system based on Automatic Identification System (AIS) technology, referred to as the Nationwide Automatic Identification System (NAIS). AIS is a maritime digital broadcast technology that continually transmits and receives voiceless exchange of vessel data. The AIS technology and communication protocol has been adopted by the International Maritime Organization as a global standard for ship-to-ship, ship-to-shore and shore-to-ship communication of navigation information.

The NAIS Project is a Department of Homeland Security (DHS) Level 1 investment and is a USCG major systems acquisition project.

The goal of NAIS is to enhance Maritime Domain Awareness (MDA), with particular focus on improving maritime security, marine and navigational safety, search and rescue, and environmental protection services. AIS data (e.g., vessel location, course and speed) is combined with other government intelligence and surveillance information to form a holistic, overarching view of maritime traffic within or near U.S. and territorial waters. Armed with a comprehensive view of our nation's waters, decision-makers will be better positioned to respond to safety and security risks, improving the safety of vessels and ports through collision avoidance and strengthening national security through detection, identification, and classification of potential threats while they are still offshore. The ability to identify and track these vessels will significantly contribute to MDA detecting anomalies, monitoring suspicious vessels, and pinpointing the location of potential threats. NAIS also supports safety warning broadcasts and aids government coordination of safety and security operations.

Command center personnel will be able to transmit AIS messages to individual vessels or multiple vessels in defined geographic areas and perform other functions designed into the international AIS standard. Furthermore, maritime traffic planners will have access to archived vessel movement data to investigate maritime incidents, analyze risks and improve vessel traffic patterns.

AIS users operating in proximity to each other will automatically create a virtual network. Shore stations will maintain the virtual networks along the shore line and receive shipboard AIS signals, perform network and frequency management, and send additional broadcast or individual messages to AIS-equipped vessels.

NAIS complements other surveillance and intelligence systems, greatly aiding the essential process of identifying vessels requiring further investigation and action. NAIS information will be displayed in the Maritime Common Operational Picture (COP) and shared with sister DHS components and other Federal agencies. Unclassified portions of the COP will also be available to state and local government port partners in support of security and safety operations.

System Description & Implementation Overview

When complete, NAIS will consist of terrestrial, sea, and space-based AIS Radio Frequency infrastructure capable of receiving AIS information from, as well as transmitting AIS information to, AIS-equipped vessels located in U.S. ports, waterways and coastal zones. Data storage, processing and networking infrastructure will complement the AIS RF infrastructure.

NAIS will send and receive AIS messages, via a very high frequency (VHF) data link, to and from AIS equipped vessels, Aids to Navigation, and search and rescue aircraft.

The Coast Guard's acquisition strategy for NAIS is founded on the principles of minimizing cost and performance risks, maximizing the use of commercially available technology, leveraging existing government infrastructure, and delivering capability in discrete useable segments. To accelerate the deployment of mission-critical capability, NAIS is being implemented in three acquisition increments as follows:

• **Increment 1 (I-1)** – AIS Receive Only in Critical Ports and Coastal provides shore-based receive-only coverage within the Nation's 58 highest priority critical ports and 16 coastal areas. I-1 uses existing Government infrastructure and was a Government led effort. As such, the NAIS Project Office partnered with the Naval Sea Logistics Center and other USCG Centers of Excellence for design, implementation and logistics support of Increment 1. All Coast Guard Sectors have at least one AIS receiver site within their Area of Responsibility (AOR) and also have the capability to view AIS vessel tracks outside their AOR (i.e., for an adjacent CG Sector or nationwide) via the maritime Common Operational Picture (COP).

• **Increment 2 (I-2)** – AIS Transmit and Receive Nationwide will build on the Rescue 21 modernization project, providing shore-based receive coverage out to 50 nautical miles and transmit capability out to 24 nautical miles along the entire coastline of the U.S., U.S. territories and along designated inland waterways.

I-2 will be procured in a two-phased approach. The first procurement will be a full and open competition and will be awarded to a single contractor, selected under best-value consideration, to design, develop, integrate, test and implement the core NAIS capability to provide AIS coverage in three USCG Sectors. The second procurement is expected to be a multiple-award contract for remote site work and installations to establish nationwide AIS coverage.

• **Increment 3 (I-3)** – AIS Long-Range Receive will extend receive coverage out to 2,000 nautical miles. I-3 capability is envisioned to be provided by a combination of satellite communication services and VHF services using offshore platforms and data buoys.

Questions and Answers (Q&As):

Q: What is the status of I-2, Phase I contract award?

A: The Coast Guard awarded a I-2, Phase I contract to deliver core NAIS data exchange capabilities on December 22, 2008. While working to award the I-2, Phase I contract, the Coast Guard has also proceeded with obligations for infrastructure planning, preparation and equipment, and program planning and management services that are required to execute the project.

Q: When will the RFP for I-2, Phase II be issued?

A: The Coast Guard is beginning the RFP process for Phase II of I-2 and anticipates its release early 2010.

Q: What is the status of I-3?

A: A commercial concept demonstration satellite was successfully launched in June 2008 to test and evaluate the feasibility of spaced-based AIS reception. The evaluation of the performance of the commercial satellite service is ongoing.

Update:

• As of September 2008, NAIS I-1 has achieved full operational capability and has been transitioned to sustainment.